

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) An optical wavelength division multiplexing and transmission apparatus, comprising a master rack and at least a one slave rack ~~possible~~ to be combined with ~~and coupled to~~ the master rack, wherein

~~a structure body of the master rack accommodates:~~

~~a first optical wavelength multiplexer in which a plurality to multiplex a group of prescribed optical wavelength signals of a group are multiplexed with each other and to output a first multiplexed signal is output; and~~

~~a synthetic optical wavelength multiplexer in which to multiplex the first multiplexed signal output from the first optical wavelength multiplexer and a second multiplexed signal are multiplexed with each other and to output a synthetic multiplexed signal is output, and~~

~~a structure body of the slave rack accommodates:~~

~~a second optical wavelength multiplexer in which a plurality to multiplex a group of optical wavelength signals of a group having a wavelength distribution that is different from that of the group of prescribed optical wavelength signals multiplexed by the first optical wavelength multiplexer are multiplexed with each other and are to output as the second multiplexed signal, and an optical amplifier in which the second multiplexed signal output from the second optical wavelength multiplexer is multiplied~~

wherein a number of the optical wavelength signal multiplexed, is divided in advance into a plurality of groups in order to additionally installed with every slave rack.

2. (Currently Amended) An optical wavelength division multiplexing and transmission apparatus, comprising a master rack and at least a one slave rack ~~possible~~ to be combined with ~~and coupled to~~ the master rack, wherein

~~a structure body of the master rack accommodates;~~

~~synthetic optical wavelength demultiplexer to input in which a synthetic multiplexed signal formed by multiplexing a plurality of respective multiplexed signals, which are respectively formed of a plurality of groups a group of different optical wavelength, which are grouped with signals having a plurality of optical wavelength distributions different optical wavelength distributions and to demultiplex and output from each other, with each other is received, the synthetic multiplexed signal is demultiplexed to both a first multiplexed signal and a second multiplexed signal and both the first multiplexed signal and the second multiplexed signal are output; and~~

~~a first optical wavelength demultiplexer to demultiplex and output a group of in which the first multiplexed signal output by the synthetic optical wavelength demultiplexer is demultiplexed to a plurality of optical wavelength signals from the first multiplexed signal demultiplexed by the synthetic optical wavelength demultiplexer of one group and the group of optical wavelength signals is output, and~~

~~a structure body of the slave rack accommodates;~~

~~a second optical wavelength demultiplexer in which the second multiplexed signal output by the synthetic optical wavelength demultiplexer is demultiplexed to a plurality of optical wavelength signals of to demultiplex and output another group and the group of optical wavelength signals is output, and an optical amplifier in which the second~~

~~multiplexed signal output from the second optical wavelength multiplexer is multiplied from the second multiplexed signal demultiplexed by the synthetic optical wavelength demultiplexer.~~

wherein a number of the optical wavelength signals multiplexed is divided in advance into a plurality of groups in order to be additionally installed with every slave rack.

3. (Currently Amended) An optical wavelength division multiplexing and transmission apparatus, comprising a master rack and at least ~~a one~~ slave rack ~~possible~~ to be combined with and coupled to the master rack, wherein

~~a structure body of the master rack accommodates:~~

~~a first optical wavelength multiplexer to multiplex a group in which a plurality of prescribed optical wavelength signals of a group are multiplexed with each other and to output a first multiplexed signal is output;~~

~~a synthetic optical wavelength multiplexer in which to multiplex the first multiplexed signal output from the first optical wavelength multiplexer and a second multiplexed signal are multiplexed with each other and to output a first synthetic multiplexed signal is output;~~

~~a synthetic optical wavelength demultiplexer in which to demultiplex and output a third multiplexed signal and a fourth multiplexed signal from the second synthetic multiplexed signal a second synthetic optical wavelength transmitted from another optical wavelength division multiplexing and transmission apparatus of an opposite end through an optical transmission line is demultiplexed to both a third multiplexed signal and a fourth~~

~~multiplexed signal and both the third multiplexed signal and the fourth multiplexed signal are output; and~~

~~a first optical wavelength demultiplexer in which the third multiplexed signal output from synthetic optical wavelength demultiplexer is demultiplexed to a plurality of optical wavelength signals of a group and the to demultiplex and output a group of optical wavelength signals is output from the third multiplexed signal output from the synthetic optical wavelength demultiplexer, and~~

~~a structure body of the slave rack accommodates;~~

~~a second optical wavelength multiplexer in which a plurality of optical wavelength signals of to multiplex a group of optical wavelength signals having a wavelength distribution that is different from that of the group of prescribed optical wavelength signals multiplexed by the first optical wavelength multiplexer are multiplexed with each other and are to output as the second multiplexed signal, and~~

~~a second optical wavelength demultiplexer in which to demultiplex and output another group of optical wavelength signals from the fourth multiplexed signal output demultiplexed by the synthetic optical wavelength demultiplexer is demultiplexed to a plurality of optical wavelength signals of another group and the group of optical wavelength signals is output, and an optical amplifier in which the second multiplexed signal output from the second optical wavelength multiplexer is multiplied,~~

wherein a number of the optical wavelength signals multiplexed is divided in advance into a plurality of groups in order to be additionally installed with every slave rack.

4. (Original) An optical wavelength division multiplexing and transmission apparatus according to claim 1, further comprising a plurality of noise cut filters corresponding to the first multiplexed signal and the second multiplexed signal respectively on an input side of the synthetic optical wavelength multiplexer on which the first multiplexed signal and the second multiplexed signal are input.

5. (Original) An optical wavelength division multiplexing and transmission apparatus according to claim 3, further comprising a plurality of noise cut filters corresponding to the first multiplexed signal and the second multiplexed signal respectively on an input side of the synthetic optical wavelength multiplexer on which the first multiplexed signal and the second multiplexed signal are input.

6. (Original) An optical wavelength division multiplexing and transmission apparatus according to claim 1, further comprising a plurality of dispersion compensation fibers corresponding to the first multiplexed signal and the second multiplexed signal respectively on an input side of the synthetic optical wavelength multiplexer on which the first multiplexed signal and the second multiplexed signal are input.

7. (Original) An optical wavelength division multiplexing and transmission apparatus according to claim 3, further comprising a plurality of dispersion compensation fibers corresponding to the first multiplexed signal and the second multiplexed signal respectively on an input side of the synthetic optical wavelength multiplexer on which the first multiplexed signal and the second multiplexed signal are input.

8. (Original) An optical wavelength division multiplexing and transmission apparatus according to claim 1, further comprising an amplifier of the master rack for the first

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multiplexed signal, an amplifier of the master rack for the synthetic multiplexed signal, a wavelength level monitoring device of the master rack for monitoring an output of the amplifier for the synthetic multiplexed signal, an amplifier of the slave rack for the second multiplexed signal, and a plurality of output control circuits for selectively controlling a plurality of levels of signals output from the amplifier for the first multiplexed signal, the amplifier for the second multiplexed signal and the amplifier for the synthetic multiplexed signal respectively in response to a detection output of the wavelength level monitoring device in which a plurality of levels of the optical wavelength signals of the first multiplexed signal, the second multiplexed signal and the synthetic multiplexed signal are monitored.